

**BEST AVAILABLE COPY**

**(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)**

**(19) World Intellectual Property Organization International Bureau**



**(43) International Publication Date**  
13 January 2005 (13.01.2005)

**PCT**

**(10) International Publication Number**  
**WO 2005/003886 A3**

**(51) International Patent Classification<sup>7</sup>:** G06F 1/00, H04L 9/32

**(21) International Application Number:** PCT/JP2004/010068

**(22) International Filing Date:** 8 July 2004 (08.07.2004)

**(25) Filing Language:** English

**(26) Publication Language:** English

**(30) Priority Data:** 2003-271929 8 July 2003 (08.07.2003) JP

**(71) Applicant (for all designated States except US):** MAT-SUSHITA ELECTRIC INDUSTRIAL CO., LTD. [JP/JP]; 1006, Oazakadoma, Kadoma-shi, Osaka 5718501 (JP).

**(72) Inventors; and**

**(75) Inventors/Applicants (for US only):** NAKANO, Toshihisa. TATEBAYASHI, Makoto. YAMAMOTO, Naoki. ISHIHARA, Hideshi.

**(74) Agent:** NAKAJIMA, Shiro; 6F, Yodogawa 5-Bankann, 2-1, Toyosaki 3-chome, Kita-ku, Osaka-shi, Osaka 5310072 (JP).

**(81) Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

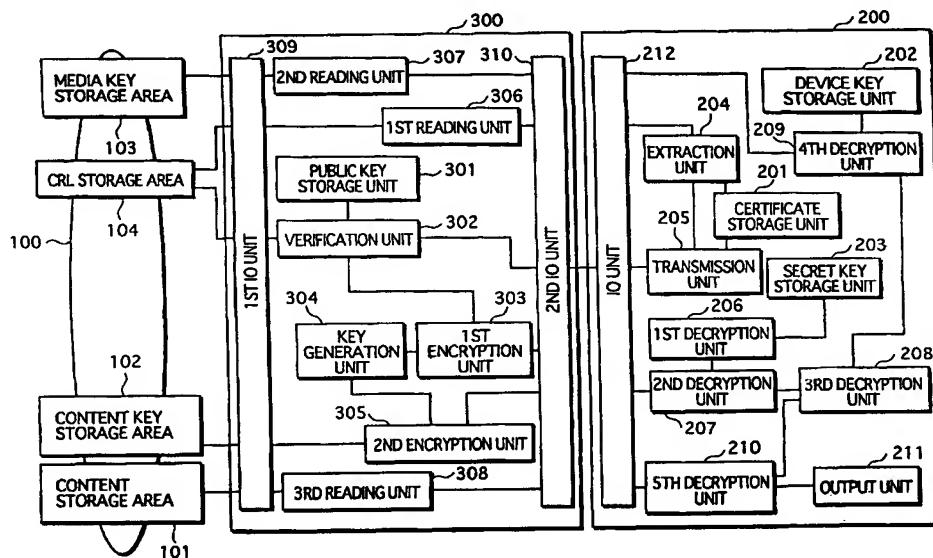
**(84) Designated States (unless otherwise indicated, for every kind of regional protection available):** ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

*[Continued on next page]*

**(54) Title:** INFORMATION INPUT/OUTPUT SYSTEM



**WO 2005/003886 A3**

**(57) Abstract:** An input/output (IO) system reduces the processing load involved in judging whether a device is valid or revoked. The system is constituted from an input/output (IO) device and an information usage device. The IO device outputs an identifier (ID) list to the information usage device, the ID list including one or more identifiers (IDs), arranged according to a predetermined rule, that each correspond to a different valid or revoked device. The information usage device uses the received ID list to specify a target range that includes a target ID stored by the information usage device, and outputs range information indicating the specified target range to the IO device, which uses the received range information in judging whether the information usage device is valid or revoked.



- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(88) Date of publication of the international search report:  
6 May 2005